

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT STATEMENT OF BASIS

TITLE V (DRAFT) No. V-03-026

KENTUCKY HYDROCARBON, INC.

LANGLEY, KY.

MASSOUD KAYVANJAH, REVIEWER, COMPLETED ON JUNE 10, 2003

PLANT I.D. # 021-071-00140

APPLICATION LOG # E835/G409/51196

SOURCE DESCRIPTION:

A. Permits Background

Type	Log #	Issuance Date	Summary of Action
Initial permit five Compressors installed on 1956	10/07/ 1968	09/28/ 1973	Permit to compress Natural Gas and extract liquefied Hydrocarbons
Registration, no permit required		01/16/ 1990	3.5 mmBtu/hr Heater, and 0.5 mmBtu/hr Heater
S-99-079 Permittee: MarkWest Hydrocarbon, Inc.	G228 (51021)	12/12/1999	State Origin Permit for Construction/Operation of Flare and Fugitives only

B. SOURCE PROCESS:

Kentucky Hydrocarbon, Inc., a division of Equitable Resources Energy Company, owns the compression units and operates the plant which is a major source for nitrogen oxide (NO_x) and a minor source of carbon monoxide, VOC, particulate matter, sulfur dioxides, and HAPs.

This plant produces liquid hydrocarbons from natural gas pipes entering the plant. Natural gas is compressed through five Cooper-Bessemer 2000 HP compressors.

The Langley plant originally was built in 1956 as a JT-type plant to process 50 mm SCFD (10 mm SCFD per Compressor) of inlet gas for high ethane (88%) and propane recovery.

COMMENTS:

In 1989 installation of a 200 HP electric compressor increased the gas process rate 40% higher to 70 mm SCFD.

In 1999 MarkWest Hydrocarbon, Inc. constructed a gas extraction facility on this plant defined as EP-03 (MW01) extraction Fugitives, and EP-04 (MW-02) a safety Flare. These two emission points have been regulated under a separate permit to MarkWest Hydrocarbon (S-99-079 Log# G228 completed 9/12/1999 and issued 12/12/99) which will be reissued as a Title Five permit. For PSD purposes all the facilities emissions contained within the property line are considered as a Major single plant.

EP-01 (CE-1 through CE-5): Five 2000 hp (5 mmBTU) Compressors

Determination of the emission factor of five Cooper-Bessemer 2000 hp Compressors are based on Kentucky Hydrocarbon engineering estimate, Log#G409.

Regulation that are not applicable:

401 KAR 51:017, since the source is constructed before September 22, 1982.
401 KAR 52:001 (46) (b) 1. A, since the source is located in an attainment area.

EP-02 (H-501): One 3.5 mmBTU/hr Regeneration Gas Heater
Emission factors are similar to emission factors of AP-42 listing for natural gas.

Applicable Regulations:

401 KAR 59:015, Section (3) (b), respect to Particulate and Sulfur dioxide emissions.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements.

At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.